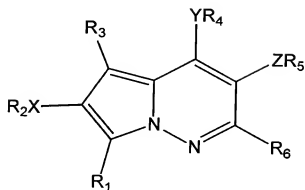


WHAT IS CLAIMED IS:

1. A compound of formula (I):



(I)

including enantiomers, diastereomers, pharmaceutically acceptable salts, prodrugs, and solvates thereof, wherein:

R_1 is selected from the group consisting of H, hydroxyl, alkyl, amino, aralkyl, halogen, $-R_1'$, $-C(O)R_1'$, $-C(O)OR_1'$, $-C(O)NR_1'R_1''$, $-S(O)_2R_1'''$, $-S(O)_2NR_1'R_1''$, OR_1' , $OC(O)R_1'$, $OC(O)OR_1'$, $OC(O)NR_1'R_1''$, $OS(O)_2R_1'''$, and $OS(O)_2NR_1'R_1''$;

R_1' and R_1'' are each independently selected from the group consisting of H, hydroxy, alkoxy, alkyl, alkenyl, alkynyl, aryl, aralkyl, amino, heterocyclo, cycloalkyl and alkylamidinyl groups; R_1' and R_1'' may also be taken together to form one of a cycloalkyl, an aryl, and a heterocyclic group;

R_1''' is selected from the group consisting of H, alkyl, aryl, aralkyl, heterocyclo, and cycloalkyl;

R_2 is selected from the group consisting of H, alkyl, cycloalkyl, aryl, heterocycle, aralkyl, $R_1'OC(O)-$, $R_1'C(O)NR_1''$, $R_1'C(O)-$, $R_1'C(S)-$, $R_1''R_1'NC(O)-$, $R_1'R_1'CN-$, $R_1'N=C-$, $R_1'''O(O)_2S$, $R_1'R_1''N(O)_2S$ and $R_1'''(O)_nS$; wherein n is the integer 1 or 2;

R_1 and R_2 may be taken together to form a cycloalkyl, aryl, or heterocyclic group;

X is selected from the group consisting of a valence bond, $-\text{CH}_2-$, O, $-\text{CO}$, $-\text{C}(\text{O})_2$, S, $\text{S}(\text{O})_m$ and NR_2' ; wherein m is 0, 1 or 2; and R_2' is selected from the group consisting of H, alkyl, aralkyl, $\text{C}(\text{O})\text{R}_1$, $\text{C}(\text{O})\text{OR}_1$, $\text{SO}_2\text{NR}_1'\text{R}_1''$, $\text{C}(\text{O})\text{NR}_1'\text{R}_1''$ and $\text{SO}_2\text{R}_1'''$; with the proviso that when X is S, R_2 is selected from the group consisting of H, alkyl, cycloalkyl, aryl, heterocycle and aralkyl;

R_3 is selected from the group consisting of H, hydroxyl, alkyl, cycloalkyl, heterocycle, aryl, aralkyl, acyl, carbalkoxy, carboxamido, halogen, amine, substituted amine, OR_3' , $\text{CH}_2\text{OR}_3'$, $\text{CH}_2\text{NR}_3'\text{R}_3''$, $\text{CH}_2\text{SR}_3'$, $\text{OC}(\text{O})\text{R}_3'$, $\text{OC}(\text{O})\text{OR}_3''$, $\text{OC}(\text{O})\text{NR}_3'\text{R}_3''$, $\text{OS}(\text{O})_2\text{R}_3'$, and $\text{OS}(\text{O})_2\text{NR}_3'\text{R}_3''$; wherein R_3' and R_3'' are each independently selected from the group consisting of H, alkyl, aralkyl, heterocycle, cycloalkyl, and aryl; R_3' and R_3'' may also be taken together to form a cycloalkyl, aryl, or heterocyclic group; when R_3 is a carbalkoxy, acyl, or carboxamido group, these groups are optionally substituted with one or two substituent groups, said substituent groups are independently selected from the group consisting of H, alkyl, aralkyl, heterocycle, cycloalkyl, and aryl; said substituent groups may also be taken together to form a cycloalkyl, aryl, or heterocyclic group;

R_2 and R_3 may also be taken together to form a cycloalkyl, aryl, or heterocyclic group;

R_4 is selected from the group consisting of H, alkyl, cycloalkyl, aryl, heterocycle, aralkyl, $\text{R}_1'\text{OC}(\text{O})$, $\text{R}_1'\text{C}(\text{O})$, $\text{R}_1''\text{R}_1'\text{NC}(\text{O})$, $\text{R}_1'''\text{O}(\text{O})_2\text{S}$, $\text{R}_1'\text{R}_1''\text{N}(\text{O})_2\text{S}$ and $\text{R}_1'''\text{N}(\text{O})_n\text{S}$, wherein n is the integer 1 or 2;

Y is selected from the group consisting of a valence bond, O, S, $\text{S}(\text{O})_m$ and NR_4' ; wherein m is 0, 1 or 2; R_4' is selected from the group consisting of H, alkyl, aralkyl, a heterocycle, $\text{C}(\text{O})\text{R}_1$, $\text{C}(\text{O})\text{OR}_1$, $\text{S}(\text{O}_2)\text{NR}_1'\text{R}_1''$, $\text{C}(\text{O})\text{NR}_1'\text{R}_1''$, and $\text{S}(\text{O}_2)\text{R}_1$; with the proviso that when Y is S, R_4 is selected from the group consisting of alkyl, cycloalkyl, aryl, heterocycle and aralkyl; when Y is NR_4' , R_4' can be taken together with R_3 to form a heterocyclic ring system;

R_5 is selected from the group consisting of H, halogen, cyano, alkyl, cycloalkyl, a heterocycle, aryl, aralkyl, acyl, substituted alkylene group, $R_1'OC(O)$, $R_1'C(O)$, $R_1''R_1'''NC(O)$, $R_1'''O(O)_2S$, $R_1''R_1'''N(O)_2S$ and $R_1'''(O)_nS$; wherein n the integer 1 or 2;

Z is selected from the group consisting of a valence bond, O, $-C(NR^8)-NR^9-NR^{10}R^{11}$, S, $S(O)_p$ and NR_5' ; wherein p is 0, 1 or 2; R_5' is selected from the group consisting of H, alkyl, aralkyl and a heterocycle; with the proviso that when Z is a valence bond, R_5 is selected from the group consisting of H, halogen, a substituted alkylene group and a cyano group; and, with the further proviso that when Z is S, R_5 is selected from the group consisting of H, alkyl, cycloalkyl, aryl, heterocycle and aralkyl;

R_6 is selected from the group consisting of H, alkyl, cycloalkyl, aryl, aralkyl, a heterocycle, acyl, carbalkoxy, and carboxamido; said carbalkoxy, acyl, and carboxamido groups are optionally substituted with one or two substituent groups, each of which is independently selected from the group consisting of H, alkyl, aralkyl, and a heterocycle; and

R^8 , R^9 , R^{10} , and R^{11} are independently H, alkyl, or cycloalkyl.

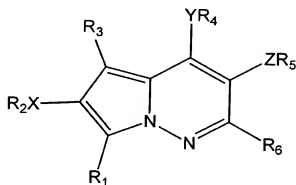
2. The compound of claim 1, wherein Z is a valence bond, and R_5 is cyano.
3. The compound of claim 2, wherein R_3 is methyl.
4. The compound of claim 3, wherein Y is NR_4' .
5. The compound of claim 4, wherein R_4 is alkyl, aryl, or heteroaryl.
6. The compound of claim 5, wherein X is a valence bond, O, or NR_2' .
7. The compound of claim 6, wherein R_2 is $R_1'C(O)$.
8. The compound of claim 6, wherein R_2 is $-C(O)NR_1'R_2'$ or $-C(O)OR_1'$.

9. The compound of claim 8, wherein R_1' and R_1'' are independently alkyl, cycloalkyl, or heterocycloalkyl.
10. A pharmaceutical composition comprising the compound of claim 1, and at least one pharmaceutically acceptable carrier.
11. The pharmaceutical composition of claim 10, further comprising at least one additional therapeutic agent.
12. The pharmaceutical composition of claim 11, wherein the additional therapeutic agent is selected from the group consisting of angiogenesis inhibitors, antiestrogens, progestogens, aromatase inhibitors, antihormones, antiprogestogens, antiandrogens, LHRH agonists and antagonists, testosterone 5 α -dihydroreductase inhibitors, farnesyl transferase inhibitors, anti-invasion agents, growth factor inhibitors, antimetabolites, intercalating antitumour antibiotics, platinum derivatives, alkylating agents, antimitotic agents, topoisomerase inhibitors, cell cycle inhibitors, and biological response modifiers.
13. The pharmaceutical composition of claim 11, wherein the additional therapeutic agent is selected from the group consisting of linomide, integrin $\alpha v \beta 3$ function inhibitors, angiostatin, razoxin, tamoxifen, toremifen, raloxifene, droloxifene, idoxifyfene, megestrol acetate, anastrozole, letrozole, borazole, exemestane, flutamide, nilutamide, bicalutamide, cyproterone acetate, gosereline acetate, luproliide, finasteride, metalloproteinase inhibitors, urokinase plasminogen activator receptor function inhibitors, growth factor antibodies, growth factor receptor antibodies, tyrosine kinase inhibitors, serine/threonine kinase inhibitors, methotrexate, 5-fluorouracil, purine, adenosine analogues, cytosine arabinoside, doxorubicin, daunomycin, epirubicin, idarubicin, mitomycin-C, dactinomycin, mithramycin, cisplatin, carboplatin, nitrogen mustard, melphalan, chlorambucil, busulphan, cyclophosphamide, ifosfamide nitrosoureas, thiotephan, vincristine, taxol, taxotere,

epothilone analogs, discodermolide analogs, eleutherobin analogs, etoposide, teniposide, amsacrine, topotecan, flavopyridols.

14. The pharmaceutical composition of claim 11, wherein the additional therapeutic agent is selected from the group consisting of taxol, Erbitux™, paraplakin and Ifex.

15. A method of treating a proliferative or inflammatory disease, in a patient in need thereof, comprising administering a therapeutically effective amount of a compound of formula (I):



(I)

including enantiomers, diastereomers, pharmaceutically acceptable salts, prodrugs, and solvates thereof, wherein:

R_1 is selected from the group consisting of H, hydroxyl, alkyl, aralkyl, halogen, OR_1' , $OC(O)R_1'$, $OC(O)OR_1'$, $OC(O)NR_1'R_1''$, $OS(O)_2R_1'''$, and $OS(O)_2NR_1'R_1''$; wherein R_1' and R_1'' are each independently selected from the group consisting of H, alkyl, alkenyl, alkynyl, aryl, aralkyl, heterocyclo, cycloalkyl and alkylamidinyl groups; R_1' and R_1'' may also be taken together to form one of a cycloalkyl, an aryl, and a heterocyclic group; R_1''' is selected from the group consisting of H, alkyl, aryl, aralkyl, heterocyclo, and cycloalkyl;

R_2 is selected from the group consisting of H, alkyl, cycloalkyl, aryl, heterocycle, aralkyl, $R_1'OC(O)$, $R_1'C(O)$, $R_1''R_1'NC(O)$, $R_1'''O(O)_2S$, $R_1'R_1''N(O)_2S$ and $R_1'''(O)_nS$; wherein n is the integer 1 or 2;

R_1 and R_2 may be taken together to form a cycloalkyl, aryl, or heterocyclic group;

X is selected from the group consisting of a valence bond, $-CH_2-$, O, S, $S(O)_m$ and NR_2' ; wherein m is 0, 1 or 2; and R_2' is selected from the group consisting of H, alkyl, aralkyl, $C(O)R_1$, $C(O)OR_1$, $SO_2NR_1'R_1''$, $C(O)NR_1'R_1''$ and SO_2R_1''' ; with the proviso that when X is S, R_2 is selected from the group consisting of H, alkyl, cycloalkyl, aryl, heterocycle and aralkyl;

R_3 is selected from the group consisting of H, hydroxyl, alkyl, cycloalkyl, heterocycle, aryl, aralkyl, acyl, carbalkoxy, carboxamido, halogen, amine, substituted amine, OR_3' , CH_2OR_3' , $CH_2NR_3'R_3''$, CH_2SR_3' , $OC(O)R_3'$, $OC(O)OR_3''$, $OC(O)NR_3'R_3''$, $OS(O)_2R_3'$, and $OS(O)_2NR_3'R_3''$; wherein R_3' and R_3'' are each independently selected from the group consisting of H, alkyl, aralkyl, heterocycle, cycloalkyl, and aryl; R_3' and R_3'' may also be taken together to form a cycloalkyl, aryl, or heterocyclic group; when R_3 is a carbalkoxy, acyl, or carboxamido group, these groups are optionally substituted with one or two substituent groups, said substituent groups are independently selected from the group consisting of H, alkyl, aralkyl, heterocycle, cycloalkyl, and aryl; said substituent groups may also be taken together to form a cycloalkyl, aryl, or heterocyclic group;

R_2 and R_3 may also be taken together to form a cycloalkyl, aryl, or heterocyclic group;

R_4 is selected from the group consisting of H, alkyl, cycloalkyl, aryl, heterocycle, aralkyl, $R_1'OC(O)$, $R_1'C(O)$, $R_1''R_1'NC(O)$, $R_1'''O(O)_2S$, $R_1'R_1''N(O)_2S$ and $R_1'''(O)_nS$, wherein n is the integer 1 or 2;

Y is selected from the group consisting of a valence bond, O, S, $S(O)_m$ and NR_4' ; wherein m is 0, 1 or 2; R_4' is selected from the group consisting of H, alkyl, aralkyl, a heterocycle, $C(O)R_1$, $C(O)OR_1$, $S(O_2)NR_1'R_1''$, $C(O)NR_1'R_1''$, and $S(O_2)R_1$; with the proviso that when Y is S, R_4 is selected from the group consisting of alkyl, cycloalkyl, aryl, heterocycle and aralkyl; when Y is NR_4' , R_4' can be taken together with R_3 to form a heterocyclic ring system;

R_3 is selected from the group consisting of H, halogen, cyano, alkyl, cycloalkyl, a heterocycle, aryl, aralkyl, acyl, substituted alkylene group, $R_1'OC(O)$, $R_1'C(O)$, $R_1''R_1'NC(O)$, $R_1'''O(O)_2S$, $R_1'R_1''N(O)_2S$ and $R_1'''(O)_nS$; wherein n the integer 1 or 2;

Z is selected from the group consisting of a valence bond, O, S, $S(O)_p$ and NR_5' ; wherein p is 0, 1 or 2; R_5' is selected from the group consisting of H, alkyl, aralkyl and a heterocycle; with the proviso that when Z is a valence bond, R_5 is selected from the group consisting of H, halogen, a substituted alkylene group and a cyano group; and, with the further proviso that when Z is S, R_5 is selected from the group consisting of H, alkyl, cycloalkyl, aryl, heterocycle and aralkyl; and,

R_6 is selected from the group consisting of H, alkyl, cycloalkyl, aryl, aralkyl, a heterocycle, acyl, carbalkoxy, and carboxamido; said carbalkoxy, acyl, and carboxamido groups are optionally substituted with one or two substituent groups, each of which is independently selected from the group consisting of H, alkyl, aralkyl, and a heterocycle.

16. The method of claim 15, further comprising administering at least one additional therapeutic agent.

17. The method of claim 16, wherein the additional therapeutic agent is selected from the group consisting of angiogenesis inhibitors, antiestrogens, progestogens, aromatase inhibitors, antihormones, antiprogestogens, antiandrogens, LHRH agonists and antagonists, testosterone 5α -dihydroreductase inhibitors, farnesyl transferase

inhibitors, anti-invasion agents, growth factor inhibitors, antimetabolites, intercalating antitumour antibiotics, platinum derivatives, alkylating agents, antimitotic agents, topoisomerase inhibitors, cell cycle inhibitors, and biological response modifiers.

18. The method of claim 16, wherein the additional therapeutic agent is selected from the group consisting of linomide, integrin $\alpha v \beta 3$ function inhibitors, angiostatin, razoxin, tamoxifen, toremifen, raloxifene, droloxifene, iodoxyfene, megestrol acetate, anastrozole, letrozole, borazole, exemestane, flutamide, nilutamide, bicalutamide, cyproterone acetate, gosereline acetate, luprolide, finasteride, metalloproteinase inhibitors, urokinase plasminogen activator receptor function inhibitors, growth factor antibodies, growth factor receptor antibodies, tyrosine kinase inhibitors, serine/threonine kinase inhibitors, methotrexate, 5-fluorouracil, purine, adenosine analogues, cytosine arabinoside, doxorubicin, daunomycin, epirubicin, idarubicin, mitomycin-C, dactinomycin, mithramycin, cisplatin, carboplatin, nitrogen mustard, melphalan, chlorambucil, busulphan, cyclophosphamide, ifosfamide nitrosoureas, thiotepan, vincristine, taxol, taxotere, epothilone analogs, discodermolide analogs, eleutherobin analogs, etoposide, teniposide, amsacrine, topotecan, flavopyridols.
19. The method of claim 16, wherein the additional therapeutic agent is selected from the group consisting of Erbitux™, taxol, paraplalin and Ifex.
20. The method of claim 16, wherein the at least one additional therapeutic agent is administered simultaneously, sequentially or a combination thereof, with the compound of formula I.